

13. The apparatus (20) of claim 4, wherein the average detector (37.1) is a sliding average detector that continuously generates a mean value of the frequency demodulated signal (demod_lp2).
- 5 14. Receiver (10) comprising an apparatus according to one or more of the preceding claims.
- 10 15. The receiver (10) of claim 14, comprising an analog front-end (10, 14, 15) and a digital back-end (16), said apparatus (20) for determining a frequency offset error being part of said digital back-end (16).
16. The receiver (10) of claim 14 or 15 being designed to receive and process FSK or GFSK modulated antenna signals.

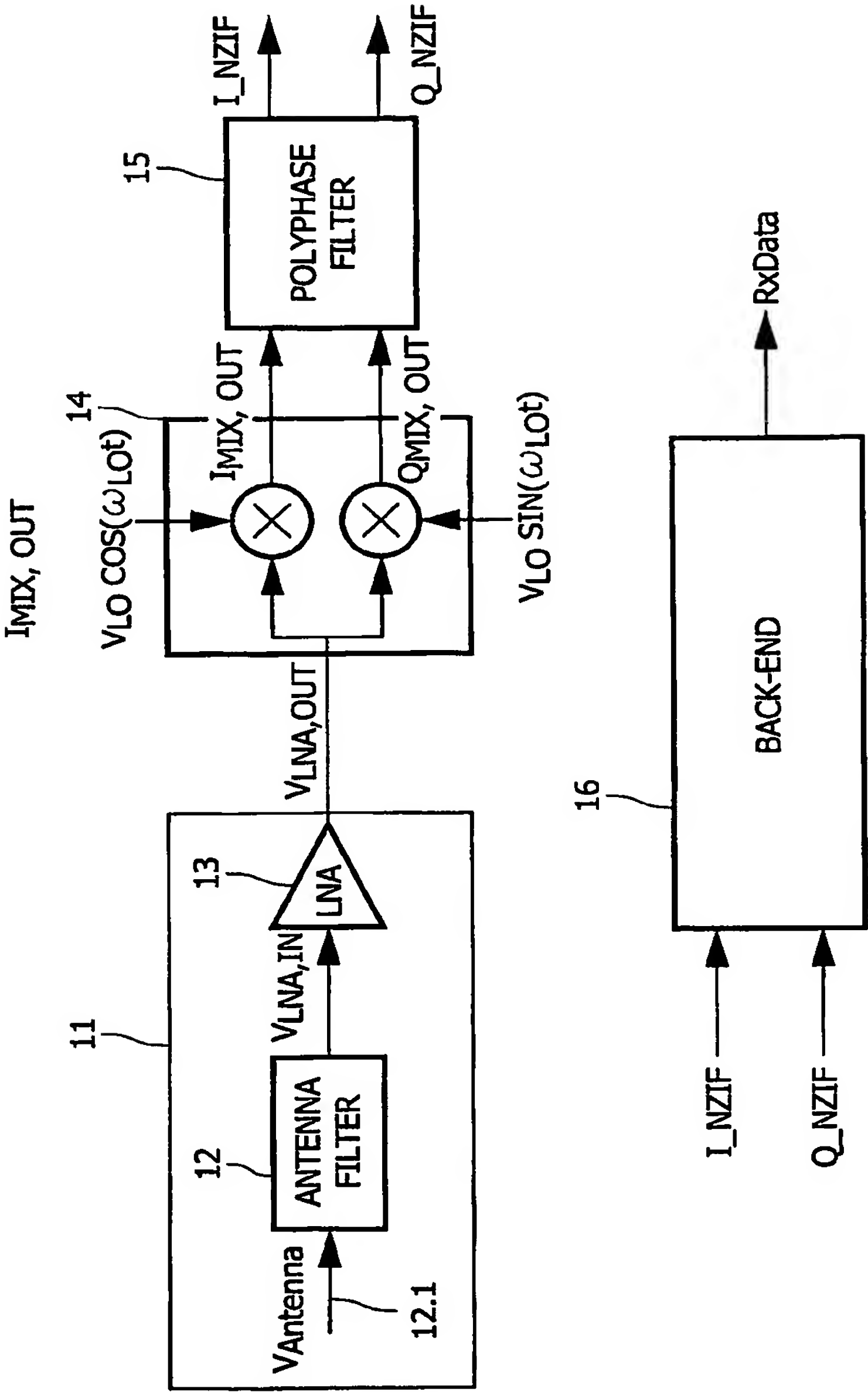


FIG.1

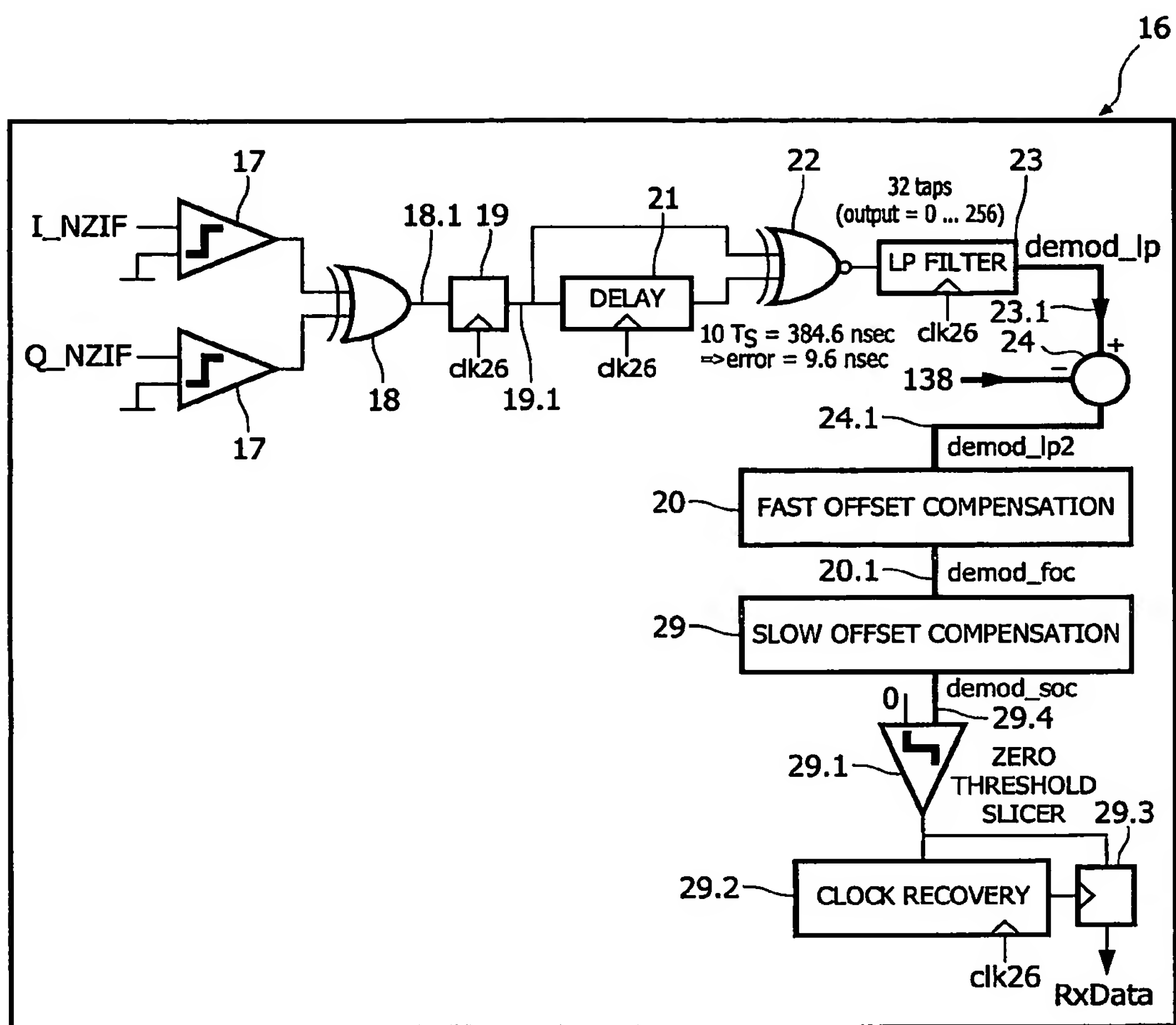


FIG.2

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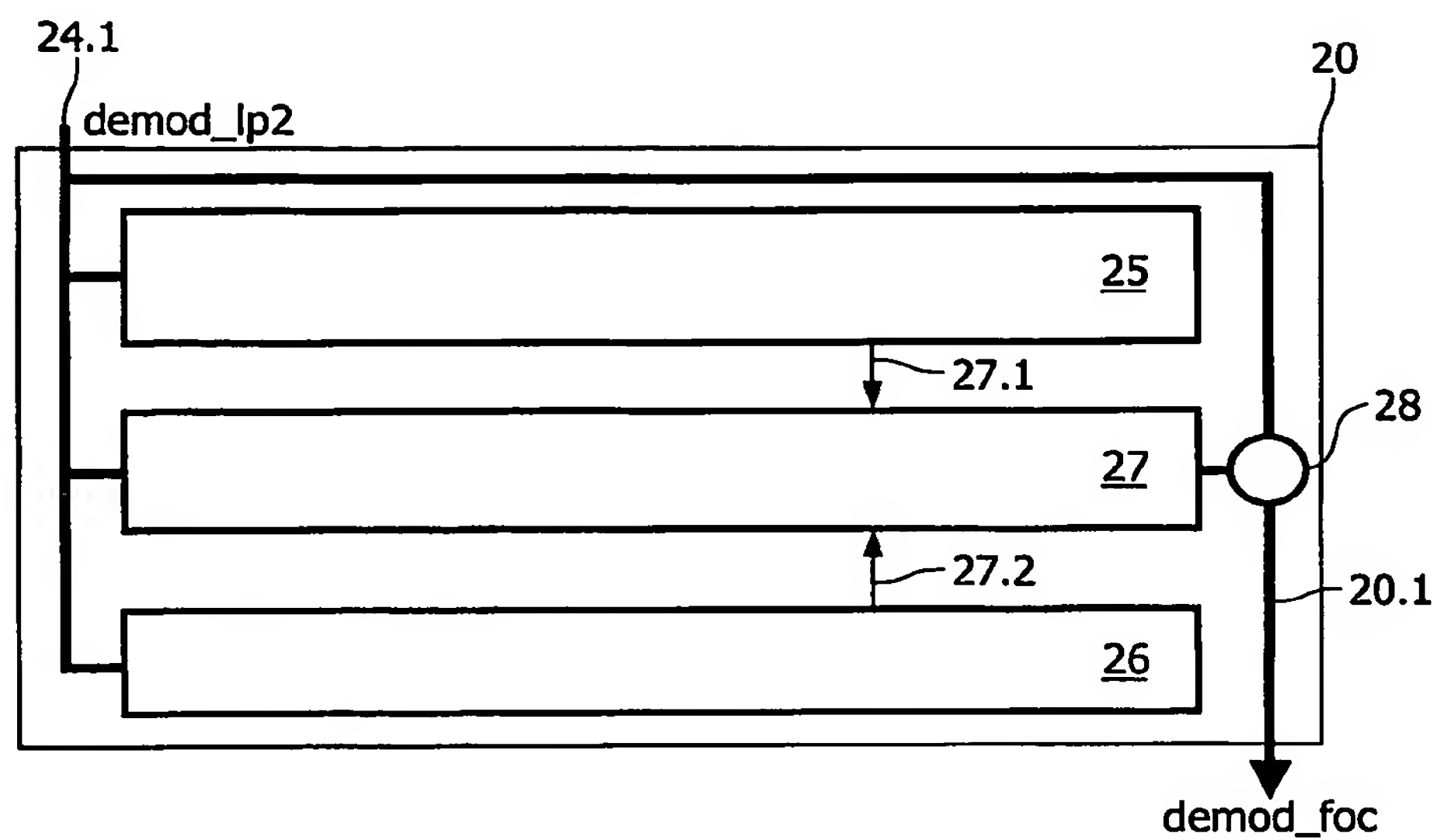


FIG. 3A

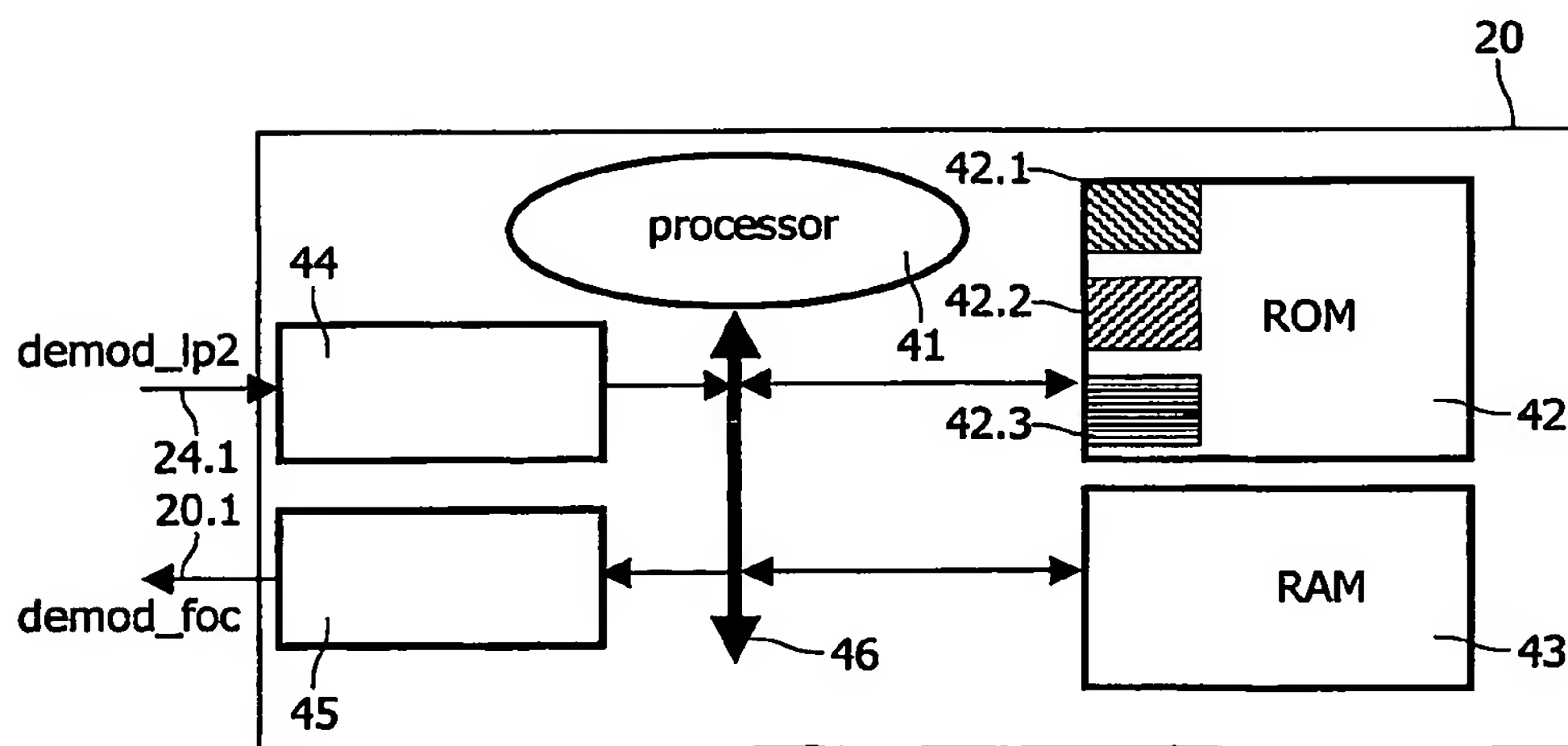


FIG. 3B

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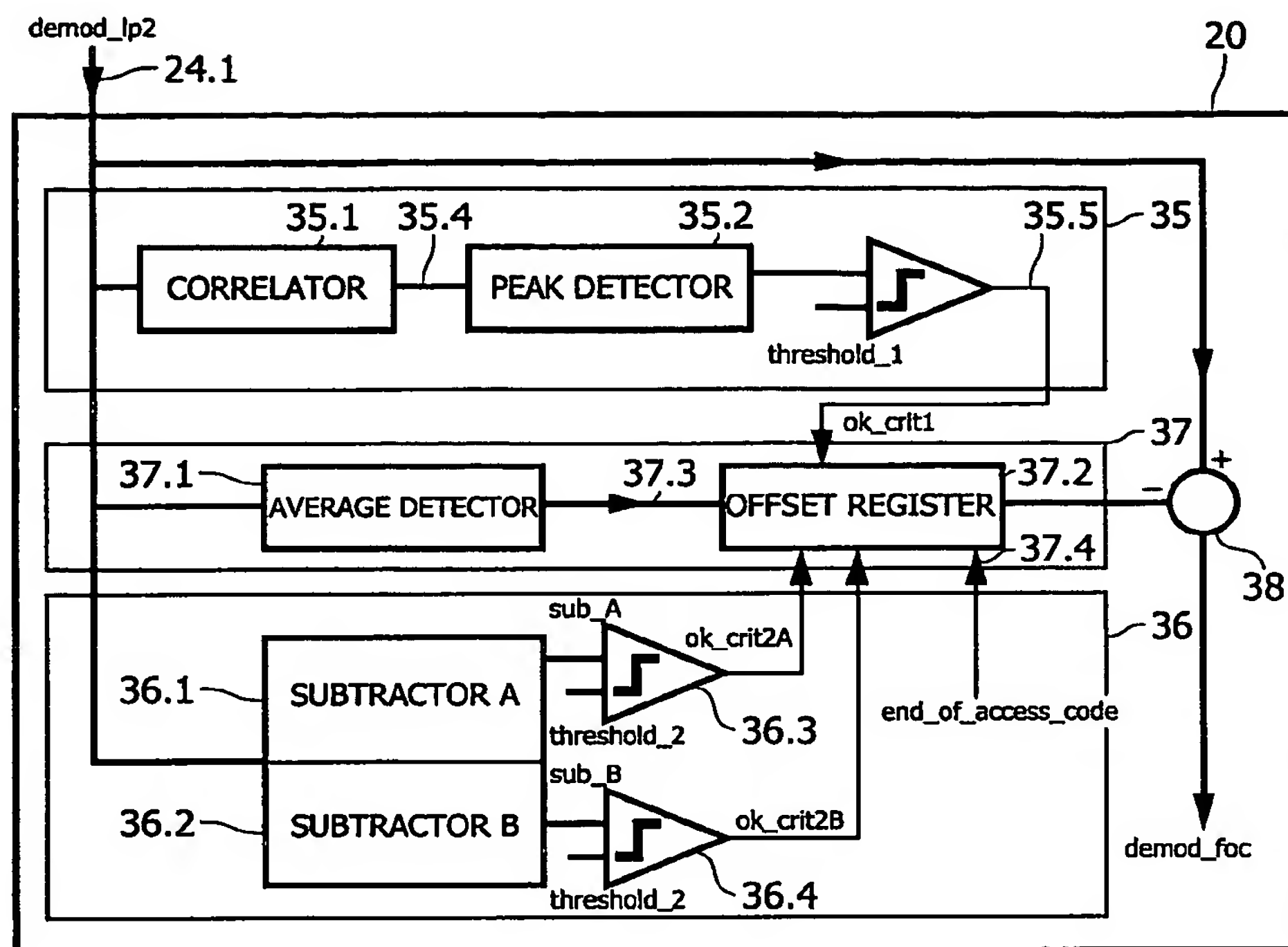


FIG. 4

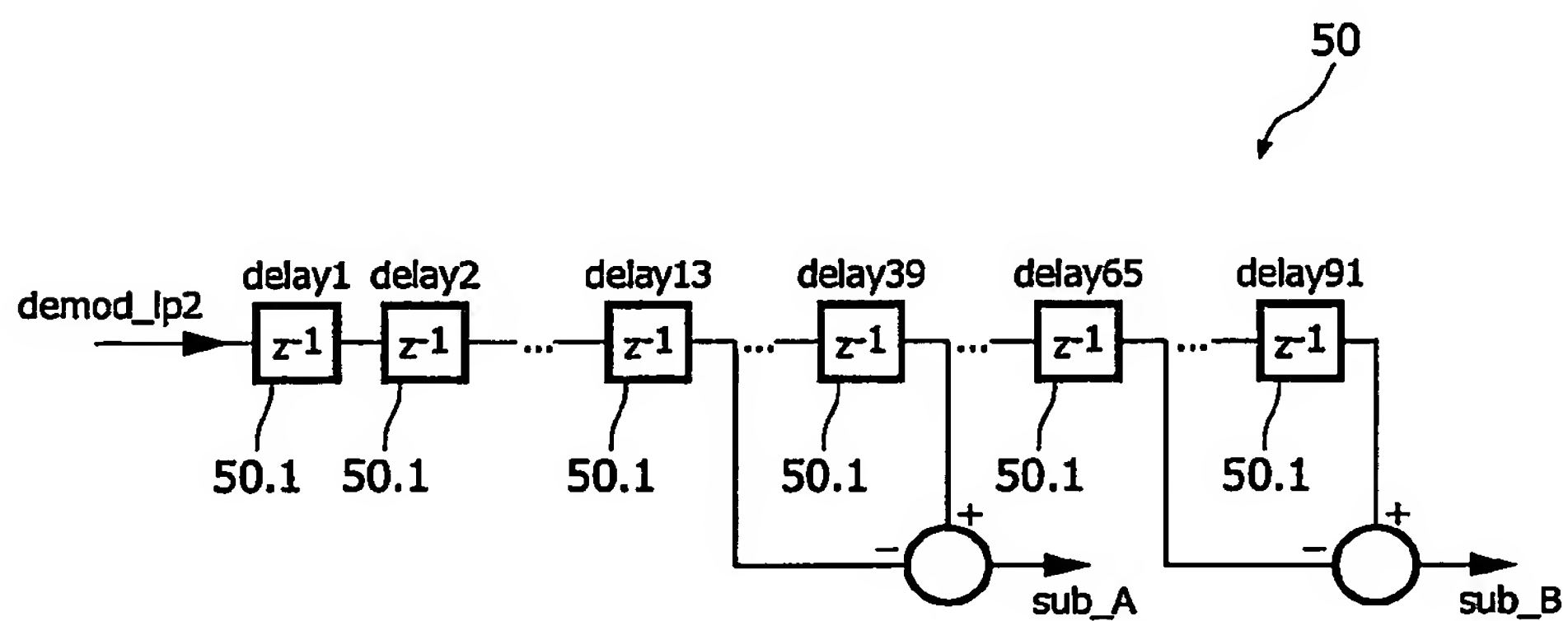


FIG. 5

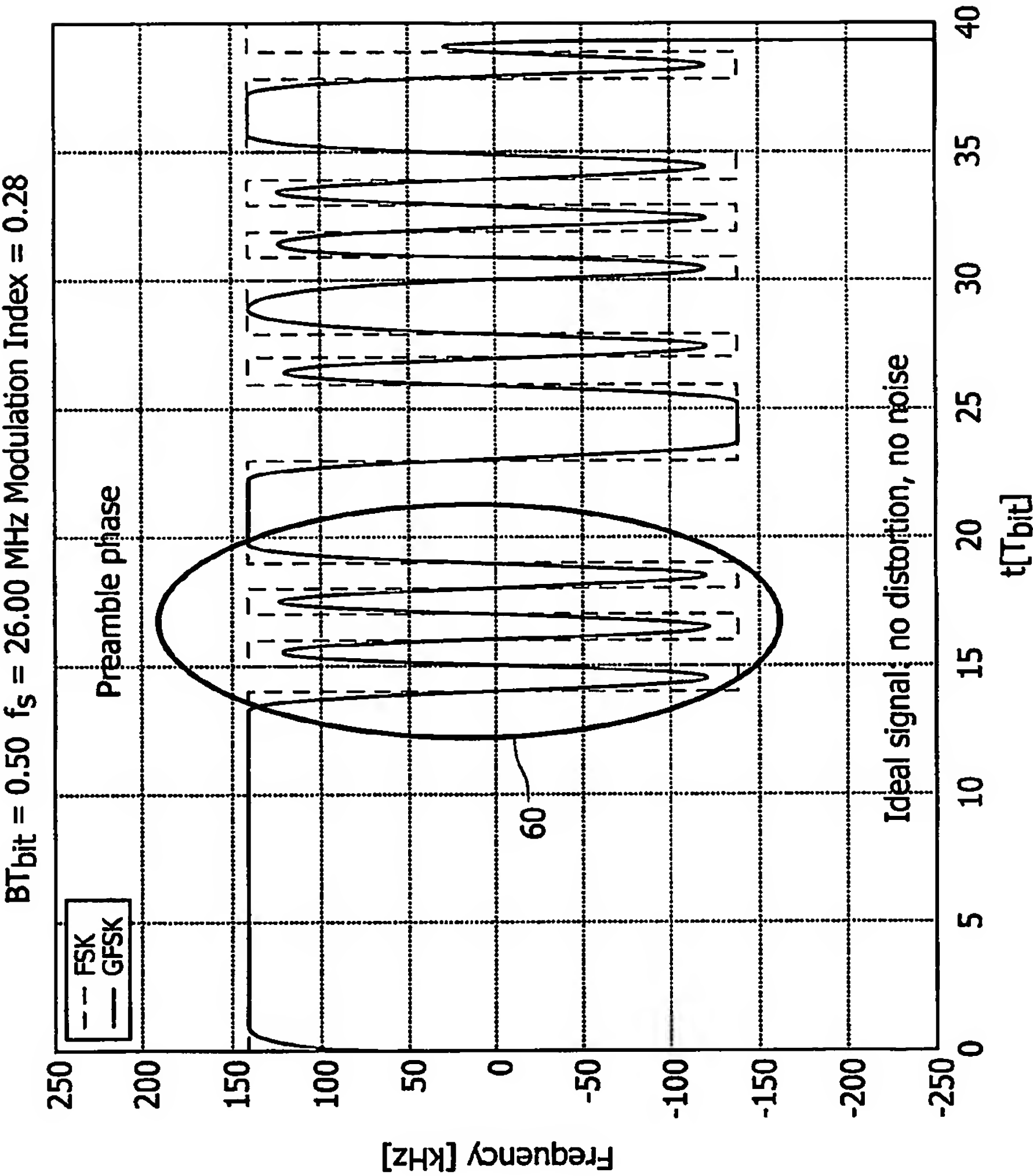


FIG.6

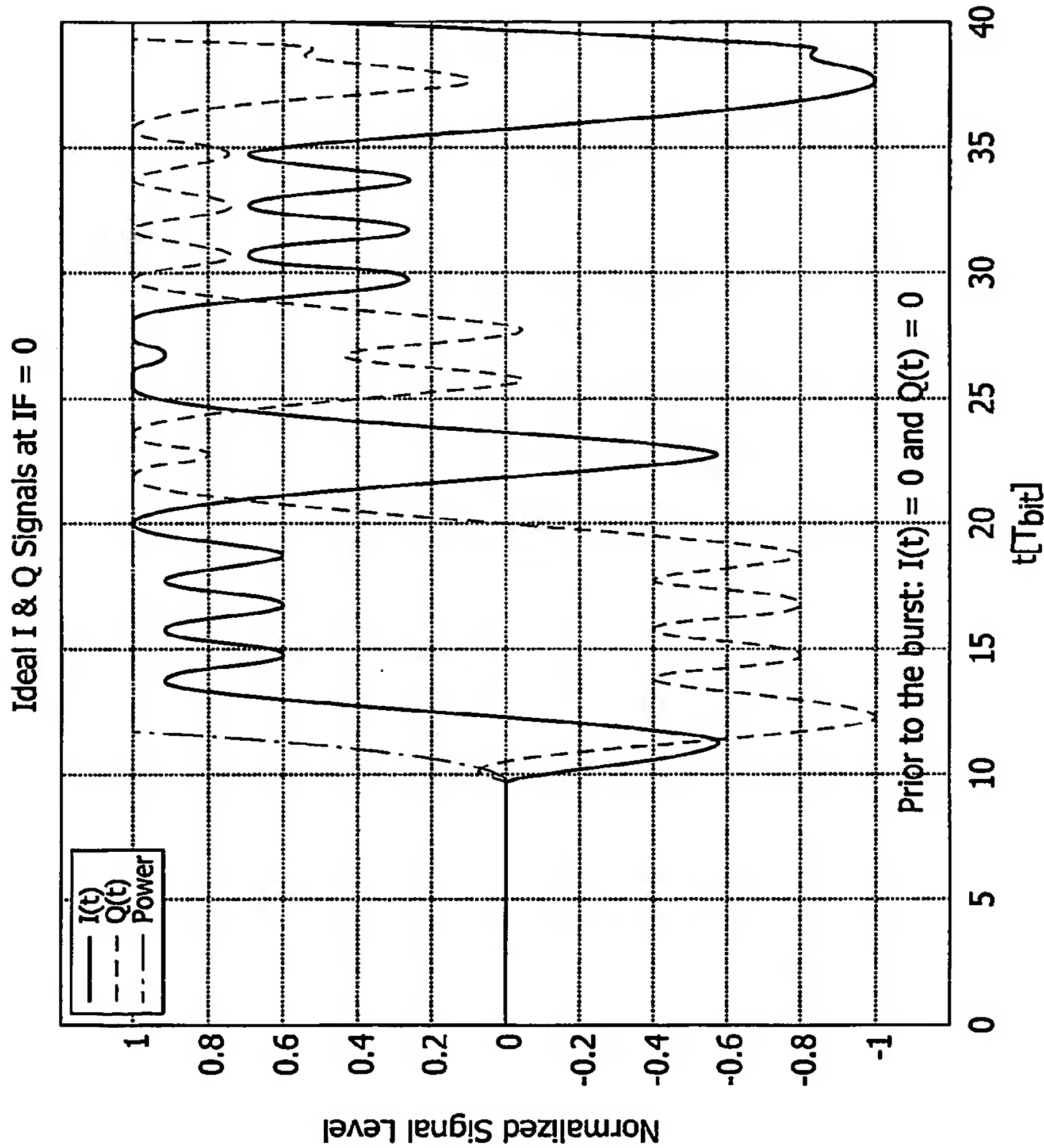


FIG.7

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Elliptical, $n = 3$, $f_{\text{cut}} = 0.5$ MHz, Passband Ripple = 1 dB, Minimum Stopband Attenuation = 57 dB

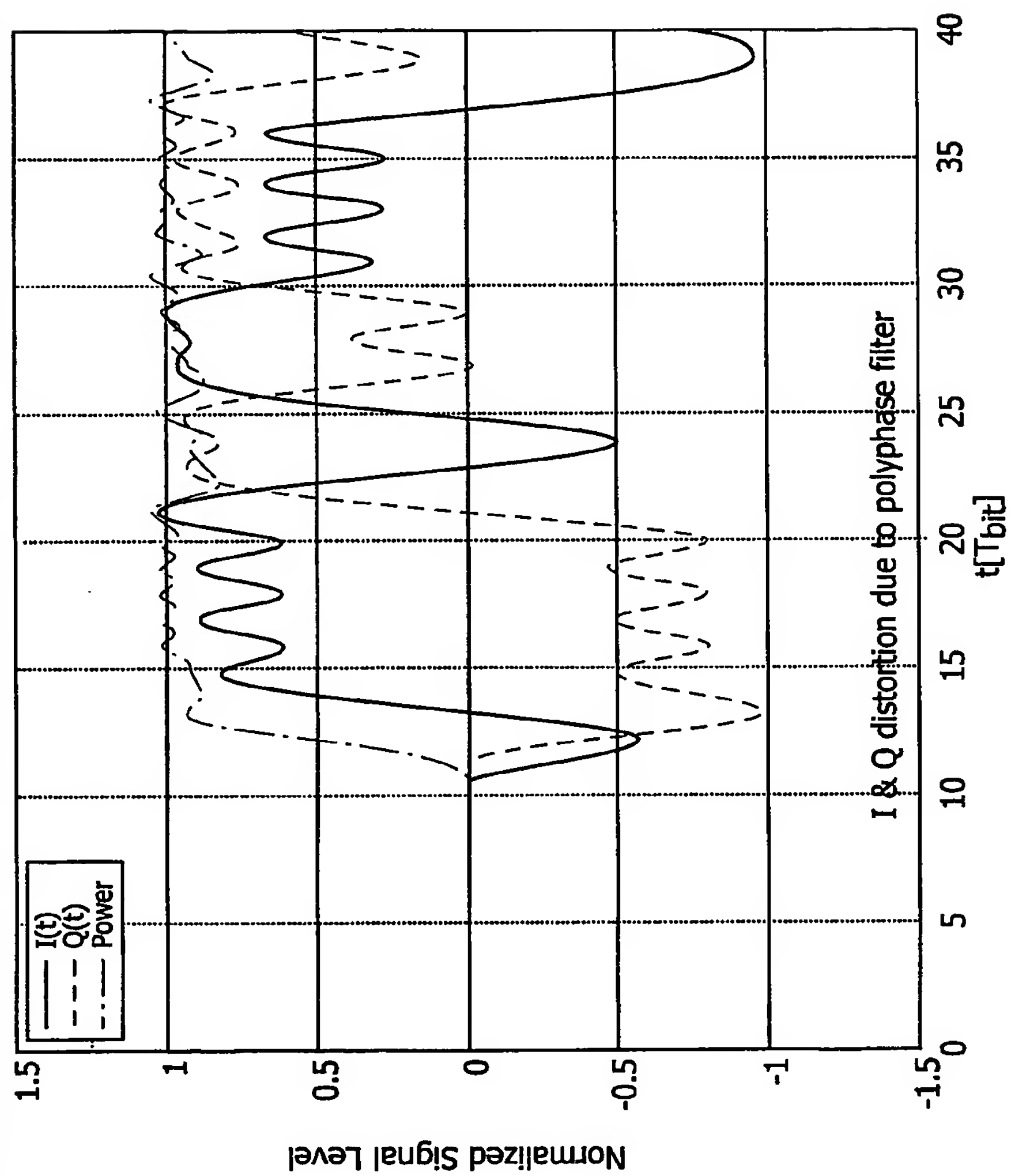


FIG.8

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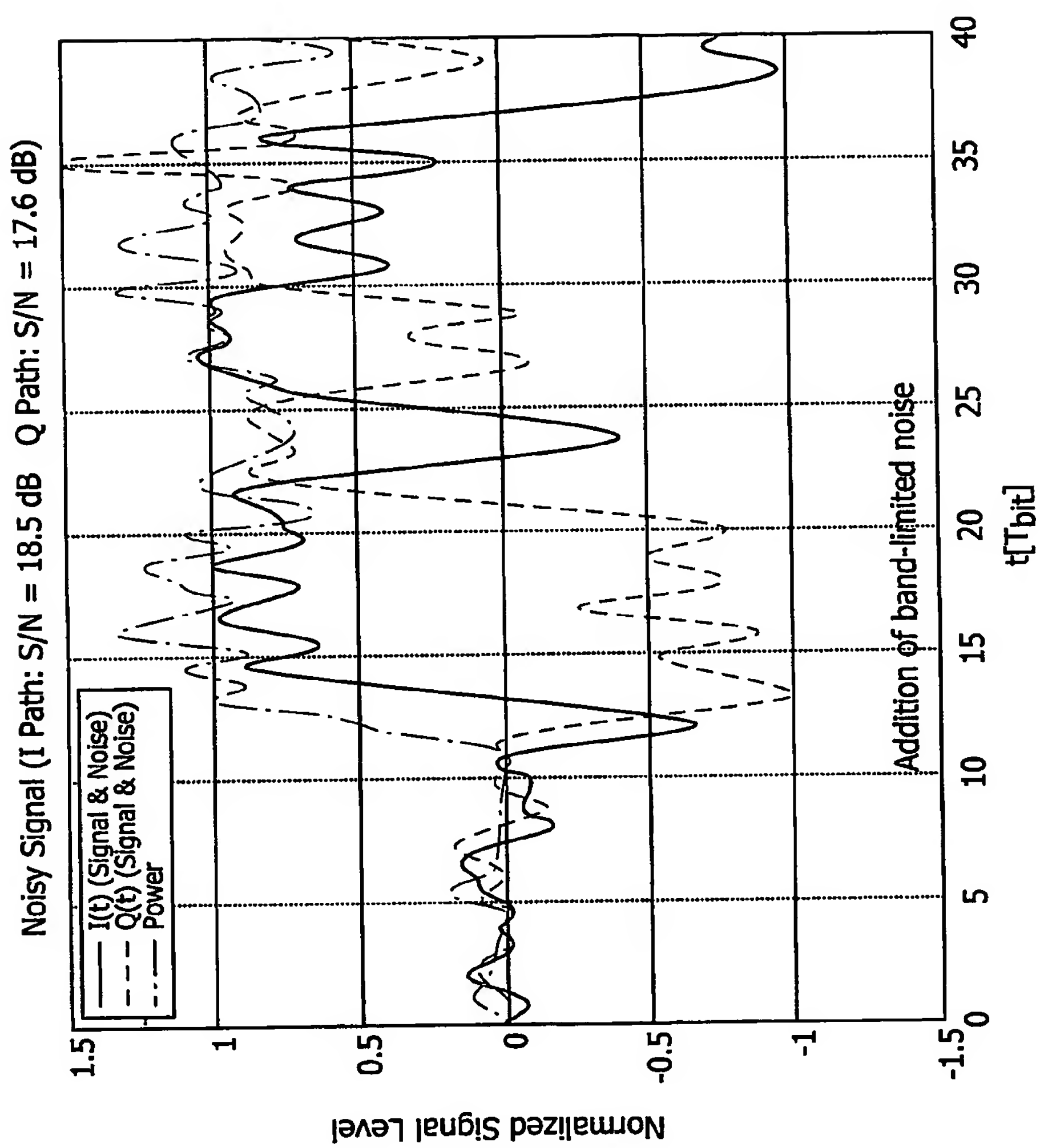


FIG.9

Example with a frequency offset error of 150 kHz
(Nominal center frequency = IF = 1000 kHz)

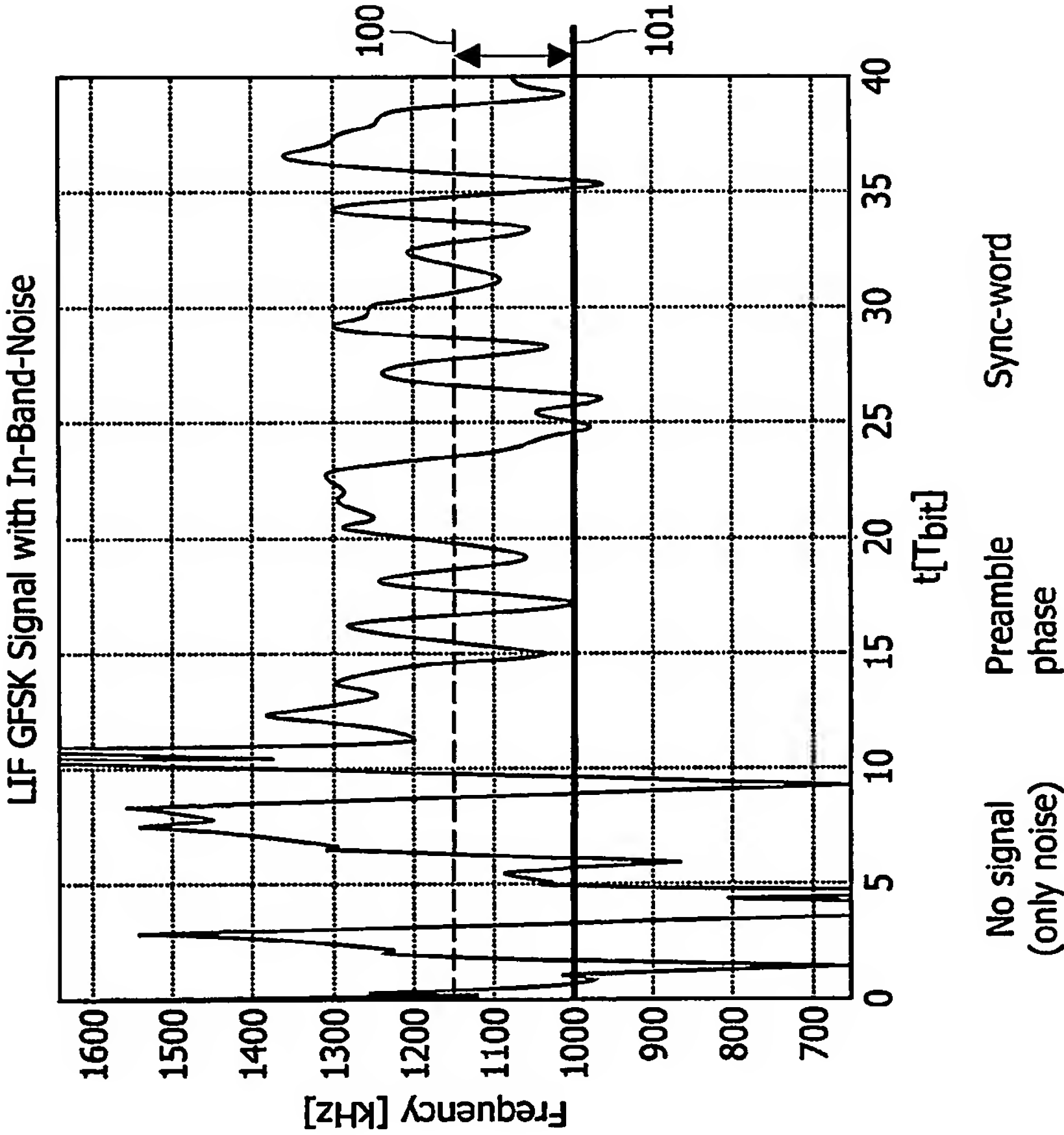


FIG.10

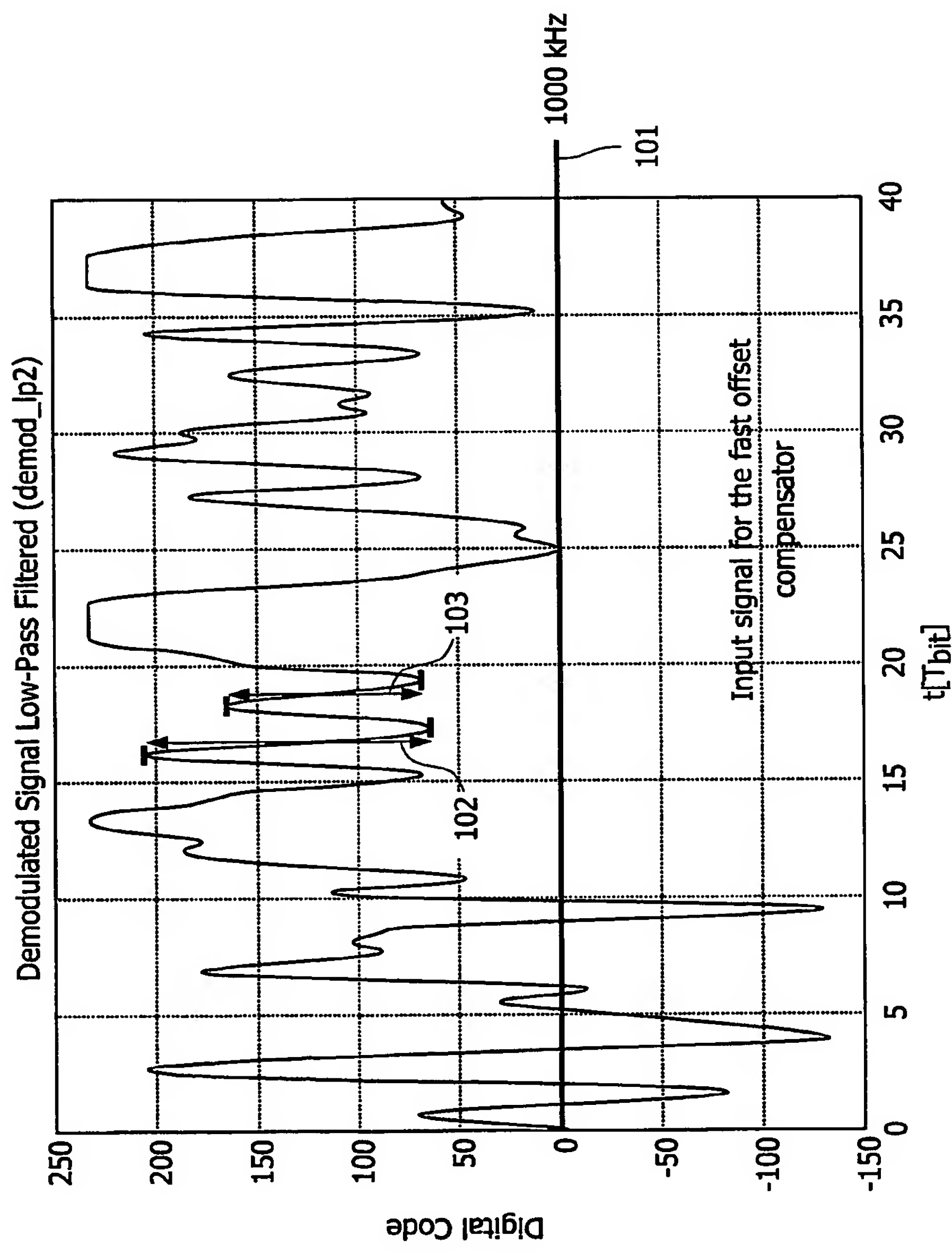


FIG.11

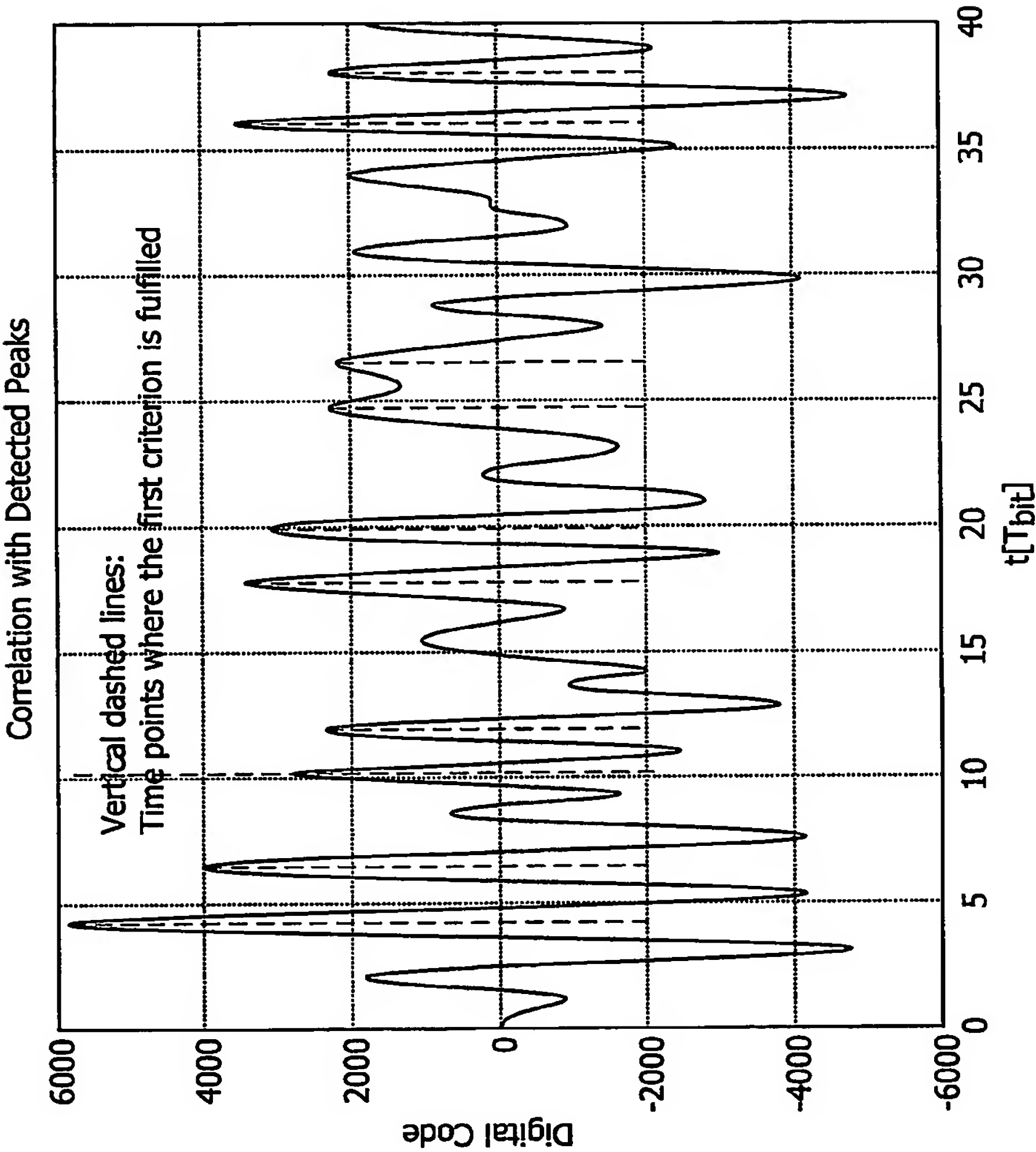


FIG.12

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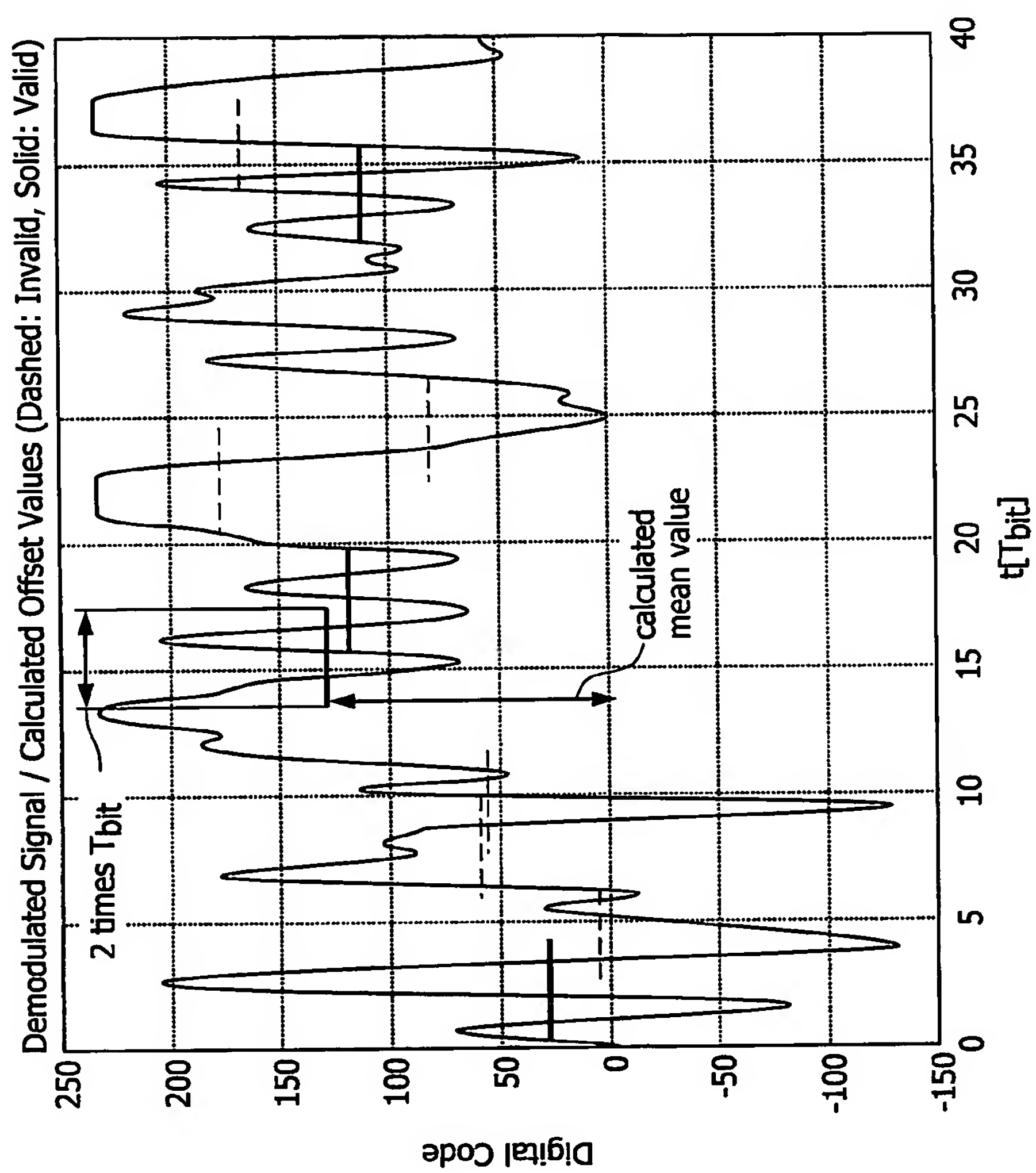


FIG.13

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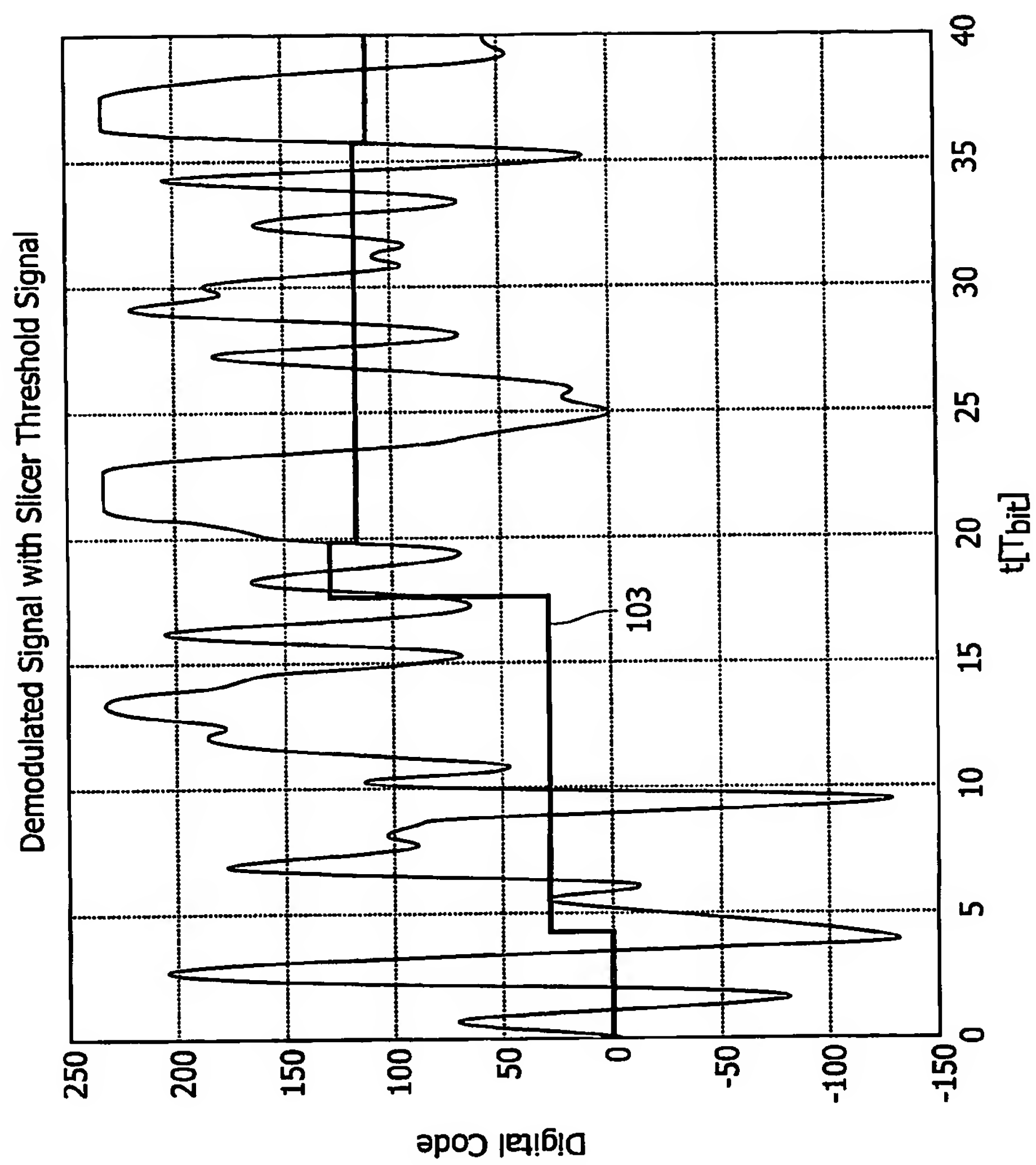


FIG.14

INTERNATIONAL SEARCH REPORT

tional Application No

/IB2004/003562

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04L25/06 H04L27/14 H04L27/152

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal , INSPEC, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document with indication, where appropriate, of the relevant passages	Relevant to claim No
X	US 6 356 608 B1 (ATARIUS ROOZBEH) 12 March 2002 (2002-03-12) column 10, line 6 - column 13, line 11 column 7, line 25 - line 56 column 4, line 62 - column 5, line 51 column 3, paragraph 3 column 1, paragraph 1 abstract -----	1-4, 6, 7, 10-16
A	US 2003/043937 A1 (SHIDA MASAOKI ET AL) 6 March 2003 (2003-03-06) paragraph '0070! paragraph '0065! paragraph '0040! - paragraph '0045! paragraph '0036! paragraph '0002! - paragraph '0008! abstract ----- -/-	1-16



Further documents are listed in the continuation of box C



Patent family members are listed in annex

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Date of the actual completion of the international search

13 January 2005

Date of mailing of the international search report

25/01/2005

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INTERNATIONAL SEARCH REPORT

International Application No
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